(No Model.) 2 Sheets—Sheet 1.

S. T. HOLLY.

HOSE CARRIAGE.

No. 274,771. Patented Mar. 27, 1883.

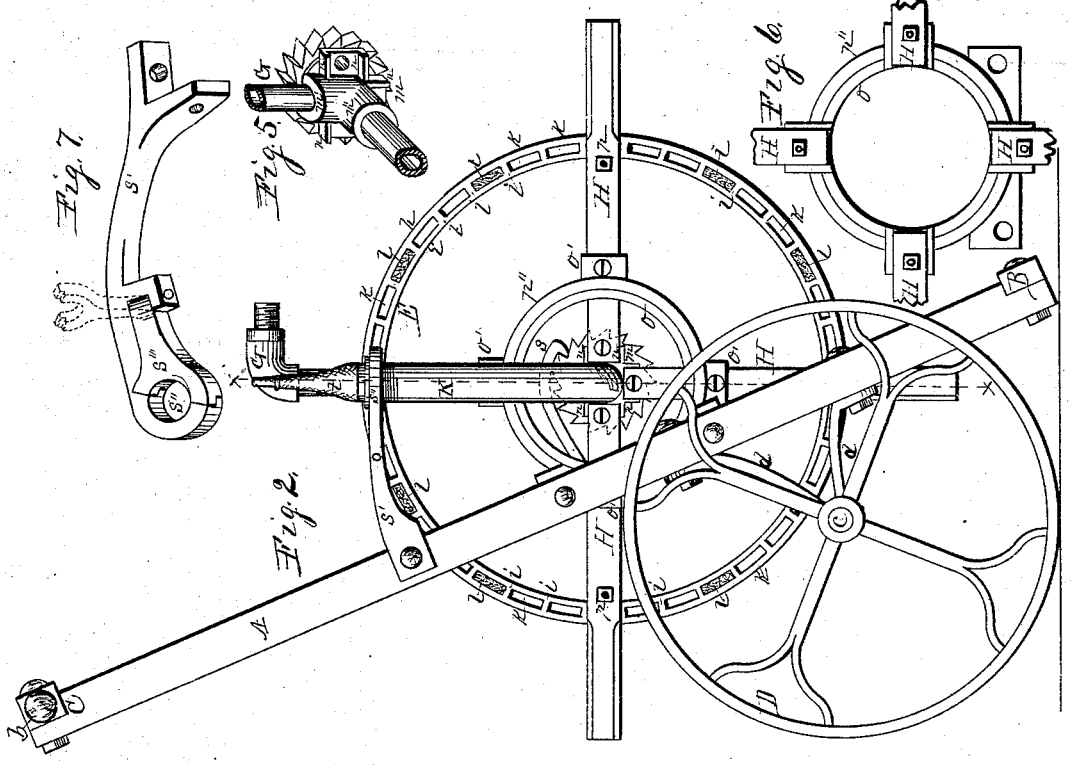

Fig. 2.

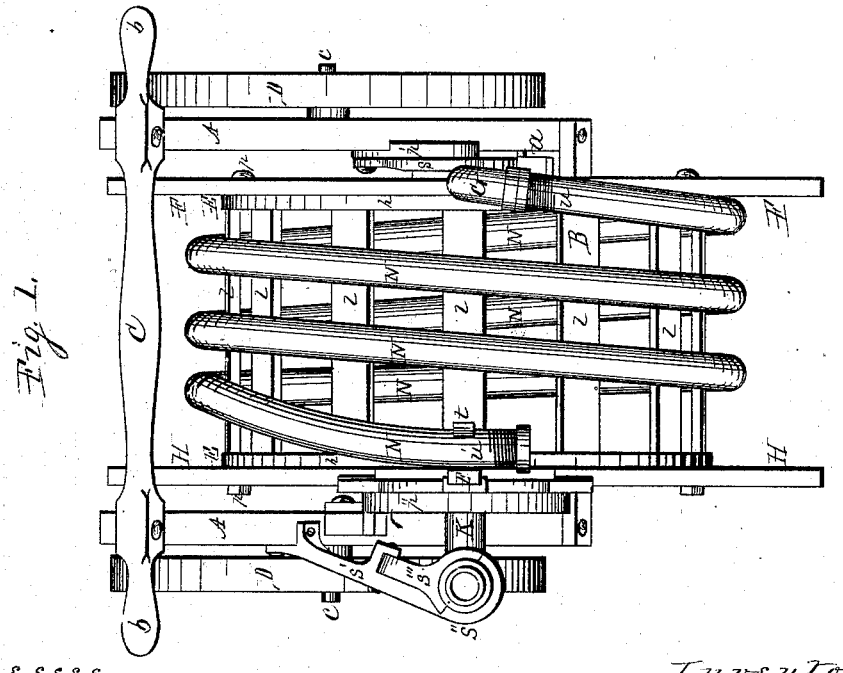

Fig. 1.

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Inventor.
Solomon T. Holly.
Per Jacob Behel.
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(No Model.)

2 Sheets—Sheet 2.

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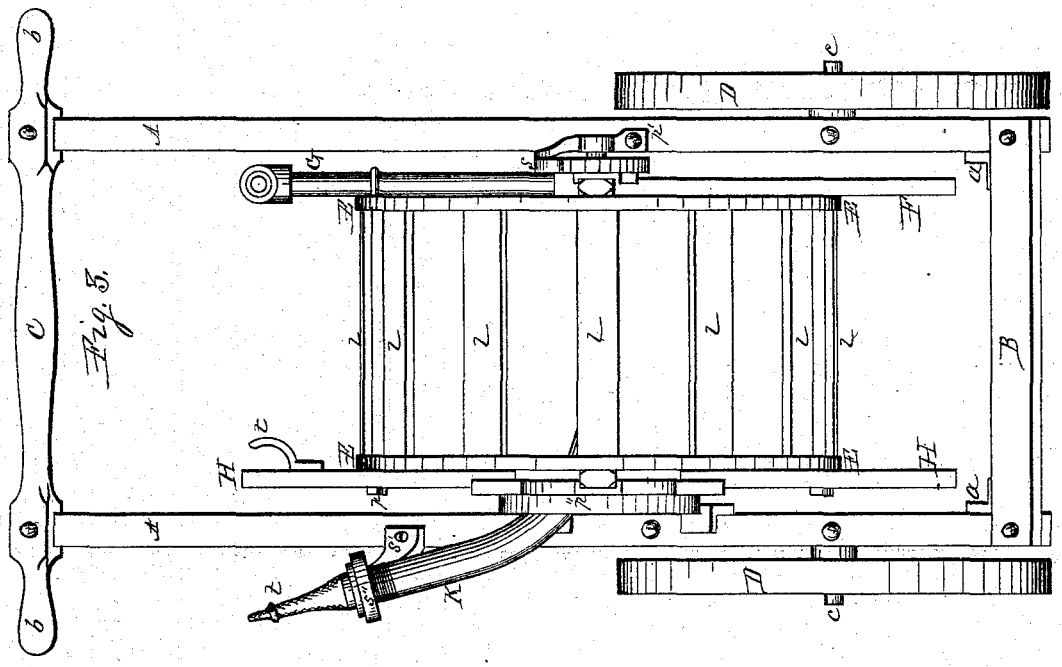

Fig. 3.

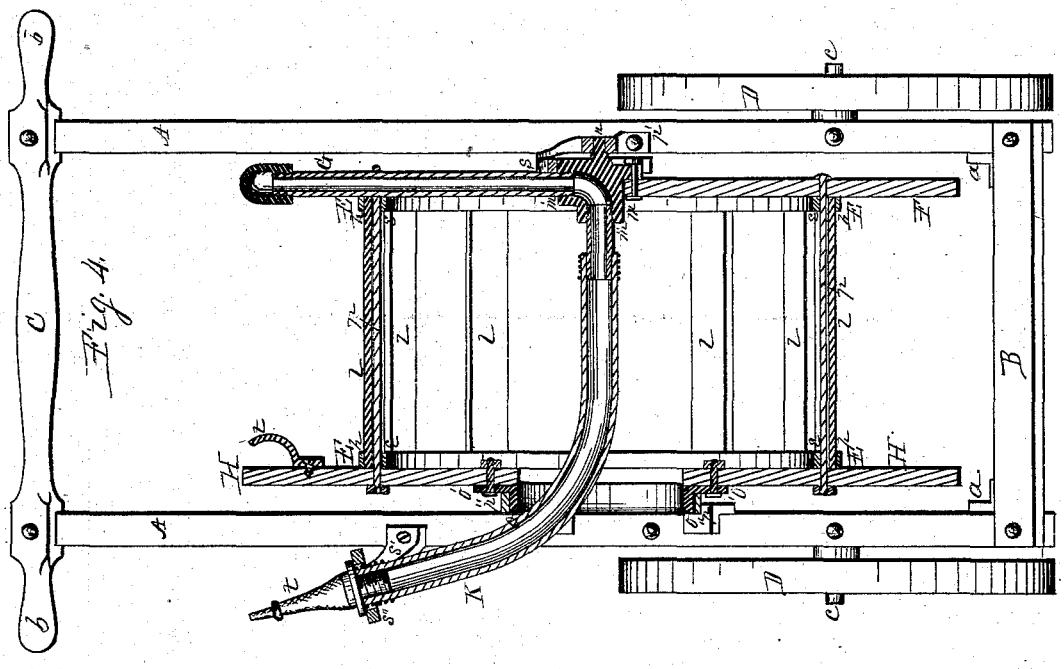

Fig. 4.

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UNITED STATES PATENT OFFICE.

SOLOMON T. HOLLY, OF ROCKFORD, ILLINOIS.

HOSE-CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 274,771, dated March 27, 1883.

Application filed May 19, 1882. (No model.)

To all whom it may concern:

Be it known that I, SOLOMON T. HOLLY, a citizen of the United States, residing in the city of Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Improvement in Hose-Carriages, of which the following is a specification.

This invention relates to that class of hose-carriages provided with a suitable reel on which to wind hose to be used mainly in connection with a yard-hydrant for the purposes for which such hose are employed, mainly upon lawns, yards, gardens, and buildings.

To provide a horse-carriage of a cheap and reliable construction, capable of being used in a convenient manner for the purposes of a lawn, yard, or garden hose-carriage, is the object of this invention. To this end I have designed and constructed the hose-carriage represented in the accompanying drawings, in which—

Figure 1 is a plan view of my improved hose-carriage when in an upright position, as shown in Fig. 2. Fig. 2 is a side elevation of my improved hose-carriage. Fig. 3 is a front elevation. Fig. 4 is also a front elevation, with reel in section, on dotted line *x x*, Fig. 2. Fig. 5 is an isometrical representation of the metallic spider of the reel end. Fig. 6 is a representation of the tubular journal of the reel end and its journal-bearing, and Fig. 7 is an isometrical representation of the nozzle-supporting clasp.

The main frame of my improved hose-carriage consists of a rectangular frame composed of side beams, A, and end beams, B and C. Of these the side beams, A, and the forward end beam, B, are rectangular in cross-section and of proper dimensions, and have their ends gained to engage each other, and are securely fixed together by means of suitable screw-bolts passed through the parts, and are strengthened in their connections by means of suitable iron angle-braces, *a*, secured to the beams in their inner angles. The rear upper ends of the side beams are suitably joined by means of the transverse handle-beam C, which is suitably gained onto the upper rear ends of the side beams, to which it is securely fixed by sufficient screw-bolts passed through the parts. The end portions of this transverse beam C extend beyond the side beams, and its projecting portions are turned in suitable handle form, as represented at *b*, and its central portion is also reduced to proper form in the turning-lathe.

At *c* are represented metallic axle-arms of suitable dimensions, fitted to receive carrying-wheels to revolve thereon. From the inner end of these axle-arms rise branching bracket-arms *d*, provided with suitable footing to engage the under face of the side beams toward their forward end portions, to which they are securely fixed in position by means of sufficient screw-bolts passed through the parts.

At D are represented carrying-wheels, in this instance produced in a casting of suitable dimensions, and are fitted to receive the axle-arms *c*, projecting from the bracket-arms *d*, on which they revolve. These parts constitute the carriage proper of my improved hose-carriage.

At E are represented annular rims consisting in this instance, of an inner annular ring, *e*, and outer annular ring, *h*, joined to each other at suitable intervals by radial arms *i*, producing rectangular elongated openings *k* between the inner and outer annular rings and the radial arms.

At *l* are represented stave-like bars having their end portions produced in tenon form of proper dimensions to enter the rectangular openings in the rims snugly, in which they are placed at suitable intervals, and are securely fixed therein by means of wedging their ends, or by screw-bolt clamping-rods connecting the rims, or otherwise connecting the parts to hold them in their relative positions to produce the drum portion of my improved hose-reel, having an open periphery of such construction as to receive the hose when wound thereon without kinking or bending it abruptly, and in a manner to permit water to flow through it with the least obstruction, and that will permit a ready drainage and rapid drying of the outer surface of the hose.

At *m* is represented a metallic spider of disk form, having its periphery produced in saw-tooth-ratchet form, for a purpose to be hereinafter described. This disk is provided with a radial tubular portion, *m'*, and an axial tubular portion, *m''*, projecting from its inner face. These tubular portions *m'* and *m''* connect or join each other in a manner to produce a continuous tube. The ends of these tubular

portions are screw-threaded on their inner surface to receive suitable tubular extensions.

At *n* are represented rib-like flanges rising from the inner face of the disk at proper intervals, and in such position thereon as to form suitable seats between the flanges to receive the inner ends of the radial arms F, which are fixed thereto by means of sufficient screw-bolts passed through the parts.

At G is represented a suitable tube having a screw-thread connection at its inner end with the outer screw-threaded end of the radial portion *m'* of the tube formed on the disk *m*. These parts constitute one of the spider ends of my improved reel, to be fixed in position to the rim of one end thereof.

At *n'* is represented a stud-journal projecting from the axial center of the outer face of the spider disk, and is designed as the axle-support of one end of the reel. The outer end of the tubular arm G is provided with a tubular elbow having its outer end screw-threaded to receive the hose-connection, by means of which the hose can be connected with or disconnected from the reel.

At *o* is represented an annular ring-journal provided with radial arms *o'*, having flanged edges forming seats to receive the inner end portions of the radial arms H, which are fixed therein by means of suitable screw-bolts passed through the parts. These parts constitute one of the spider ends of my improved reel, to be fixed in position to the rim of one end thereof. These spider ends are placed one on each end of the drum portion of the reel in such a manner that their journals shall be in the axial center of the reel and their respective radial arms shall be in the same radial plane, and in this position they are securely fixed to the drum ends by means of suitable screw-bolt rods, *p*, passed through the radial arms immediately under or inside of the rims of the drum portion of the reel. These rod screw-bolts may be passed through the radial arms and through perforated ears formed on the inner edge of the rims of the drum prepared to receive them, and, as in this instance, where a tube is employed instead of one of the wooden radial arms, a rod screw-bolt having one of its ends made in loop or stirrup form to embrace the tubular arm may be employed.

At *p'* is represented a bracket-formed journal-bearing adapted to receive the stud-journal *n'* of the metallic spider *m*. This bracket-formed bearing is securely fixed in position on one of the side beams of the carriage-frame by means of suitable screw-bolts passed through the parts.

A *p''* is represented a tubular or ring-formed journal-bearing adapted to receive the annular ring-journal *o* of one of the end spiders of the drum. This tubular or ring-formed journal-bearing is securely fixed in position on one of the side beams of the carriage-frame by means of suitable screw-bolts passed through the parts. In these bearings my improved reel is mounted to revolve upon the carriage-frame.

At *s* is represented a pawl pivoted to the side beam of the carriage-frame in such relative position with the ratchet-wheel that its free hook end will engage the teeth thereof to hold the reel to prevent the hose running therefrom. The pivotal connection of this pawl is such that its free hook end can be turned upward into a position to prevent it from engaging the teeth of the ratchet-wheel to permit the hose to be unwound from the reel.

At K is represented a short portion of hose having its end portion fitted with screw-connection to engage the axial tubular portion of the metallic spider *m*, from which connection it extends in the axial center of the reel outward through the center opening of the ring-formed journal *o*, curving upward, having its end portion provided with a suitable nozzle-connection.

At *s'* is represented a nozzle-supporting bracket-clasp having a foot-support on the side beam of the carriage-frame, from which point it extends forward and outward in position to receive the nozzle-supporting end of the hose to support it in a frame substantially vertical over the axle-support of the reel when the carriage is supported on the forward end of its frame. The free end of the nozzle-supporting bracket is of ring-clasp form, as at *s''*, to receive the nozzle-supporting end of the hose in such a manner as to permit it to revolve therein with the rotations of the reel. This nozzle-supporting end of the bracket-clasp is formed with a hinged latch-like portion, *s'''*, which is capable of an upward swinging movement, as represented in the dotted lines at Fig. 7.

At *t* is represented a nozzle which has a screw-connection with the free end of the hose K, supported in the bracket-clasp.

At N is represented hose wound upon the reel, having one of its ends, as at *u*, connected with the tubular arm G of the reel, and its free end *u'* supported on one of the reel-arms by means of a hook-arm, *t'*, or other suitable device to support the free end of the hose for the purpose of transportation.

In the use of my improved hose-carriage for the purposes for which such carriages are usually employed upon lawns, yards, gardens, or other situations in which it may be found useful the free end *u'* of the hose is connected to the hydrant. The carriage is then wheeled to the location desired, unwinding the hose from the reel. The carriage is then stationed at the desired location by placing it in the position represented in Fig. 2. The water from the hydrant will then pass through the hose, the tubular arm, through the short hose, and be discharged through the nozzle, and by means of the inclination of the nozzle and the adjustability of the carriage the discharge of the water can be directed to any point within the limits of the device.

In the foregoing I have described my improved reel as consisting of the drum portion, a spider end having a tubular radial arm, and

a spider end having a large tubular bearing to permit the nozzle portion of the hose to pass outward through it, all of which I prefer in the construction of my improved hose-carriage; but it is evident that the open or skeleton drum portion of my improved reel may be employed in connection with the ordinary cross-arm spider ends common in yard hose-reels; or the tubular radial arm of the reel may be omitted and the end of the hose connected with a tubular axle, and still be within the scope of my invention, so long as the drum, as such, is constructed of annular rims having an open stave-like periphery.

I claim as my invention—

1. The combination, with a flexible discharge tube or pipe connected with the axial tube of a hose-reel and with the main frame of the wheeled carriage, of a nozzle-supporting bracket fixed to the main frame, and its free end adapted to receive and support the nozzle or nozzle end portion of the flexible discharge tube or pipe, substantially as and for the purpose hereinbefore set forth.

2. A nozzle-supporting bracket having a hinged latch-like portion capable of a pivotal swinging movement, substantially as and for the purpose hereinbefore set forth.

3. The combination, in a hose-reel, of a tubular connection communicating with the interior of the reel, an open tubular bearing, and an adjustable discharge-pipe, substantially as described.

4. The herein-described metallic spider of disk form, provided with a stud-journal projecting from the axial center of its outer face, an axial tube projecting from the axial center of its inner face, and a radial tube having a suitable connection with the axial tube and radiating therefrom, in combination with the radial arms F and a tubular radial arm, G, producing a spider end to engage the end of the drum portion of the reel, substantially as and for the purpose hereinbefore set forth.

5. In a hose-reel, the combination, with the tubular arm, of the open tubular bearing and the detachable discharge-pipe, substantially as and for the purpose described.

6. In a hose-reel, the combination, with the tubular arm G and spider *m*, of the open tubular bearing *p''* and the detachable discharge-pipe K, substantially as and for the purpose described.

7. In combination with the spider and fixed axial and radial tubes *m'* G, the reel B, provided with open tubular bearing *p''* and detachable discharge-pipe K, and the service-hose N, substantially as and for the purpose described.

8. A hose-reel of drum form, consisting of annular rims provided with elongated openings, as described, staves having their ends provided with tenons to enter the openings in the annular rims, radial arms extending beyond the periphery of the annular rims, and screw-bolt clamping-rods extending through the radial arms within the annular rims, producing a drum-reel with open periphery, as and for the purpose set forth.

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Witnesses:
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A. O. BEHEL.